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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,613	01/25/2002	Ralf Geiben Lynn	23659-501	2925

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EXAMINER	
CHEN, STACY BROWN	
ART UNIT	PAPER NUMBER
1648	

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No.	Applicant(s)	
	10/057,613	GEIBEN LYNN ET AL.	
	Examiner	Art Unit	
	Stacy B Chen	1648	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 11 May 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☒ The period for reply expires *4* months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. ☐ The proposed amendment(s) will not be entered because:

   (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);

   (b) ☐ they raise the issue of new matter (see Note below);

   (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.

4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5. ☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *See Continuation Sheet*.

6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7. ☒ For purposes of Appeal, the proposed amendment(s) a)☐ will not be entered or b)☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: _____.

   Claim(s) objected to: _____.

   Claim(s) rejected: *1,4,8,10,12,16-19,22,24,27,35 and 49*.

   Claim(s) withdrawn from consideration: _____.

8. ☐ The drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.

9. ☒ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). *5/11/04*.

10. ☐ Other: _____

Continuation of 5. does NOT place the application in condition for allowance because: Claims 1, 4, 8, 10, 12, 16-18, 35 and 49 remain rejected under 35 U.S.C. 102(b) as anticipated by, or in the alternative, obvious under 35 U.S.C. 103(a) in view of Lezdey et al. (5,532,215), herein "Lezdey", for reasons of record. Claims 19, 22, 24 and 27 remain rejected under 35 U.S.C. 103(a) for being obvious over Lezdey in view of Hopkins (WO96/10639), for reasons of record. Applicant's arguments have been carefully considered but fail to persuade. Applicant's substantive arguments are primarily directed to the assertion that antithrombin and antithrombin III neither express the same thing nor convey the same or approximately the same idea, according the GenBank database. Applicant concludes that Lezdey fails to teach antithrombin III based on the different accession numbers assigned to antithrombin III and antithrombin (see Exhibit A of Applicant's response filed May 11, 2004). The Office recognizes that GenBank has assigned different accession numbers to antithrombin and antithrombin III. The Office also recognizes that GenBank's definition of antithrombin refers to a 57 amino acid protein, and antithrombin III refers to a 464 amino acid protein. However, it is recognized in the art that antithrombin and antithrombin III are interchangeable terms. McKenna teaches that antithrombin III is currently referred to as antithrombin, see background section on page 2 of document. The document titled "Antithrombin Deficiency" (University of Illinois at Urbana/Champaign) discloses that antithrombin is also referred to as antithrombin III in older literature, see first sentence of the first page. Therefore, antithrombin and antithrombin III are interchangeable terms in the art.

Applicant also asserts that claims 1, 8 and 35 are not anticipated or obvious over Lezdey because antithrombin III is not synonymous with 43 kDa modified antithrombin, R-antithrombin, S-antithrombin or pre-latent antithrombin. In response, the claims are drawn to variants and analogs of 43 kDa modified antithrombin, R-antithrombin, S-antithrombin or pre-latent antithrombin. Lacking any structural limitations for variants and analogs of the above listed forms of antithrombins, antithrombin III qualifies as a variant or analog.

Applicant also asserts that Lezdey fails to teach antithrombin III bound to heparin. Applicant argues that S-antithrombin is the conformation that antithrombin III assumes when it binds to heparin. The Office recognizes that S-antithrombin is the conformation that antithrombin III takes when it binds to heparin, therefore, regardless of whether Lezdey mentions heparin in the context of binding antithrombin III, the process is naturally occuring when one administers antithrombin III, just as it is naturally occuring in Applicant's claimed method.

Applicant also argues that Lezdey mentions serpins generally in the inhibition of HIV proliferation, but fails to mention antithrombin III. Applicant argues that because Lezdey only uses serpins alpha-1-antitrypsin and alpha-1-antichymotrypsin, that Lezdey is teaching that serpins other than antithrombin are preferred. In response, the Office does not consider Applicant's opinion to be conclusive evidence. Applicant is basing their conclusion on the absence of experimental data with antithrombin in Lezdey. The absense of experimental data is not evidence that antithrombin is not functional in the inhibition of HIV. Lezdey teaches that serpins inhibit viral proliferation, and that antithrombin is a serpin. These teachings anticipate Applicant's invention.

Applicant also argues that the administration dosages of antithrombin are not anticipated nor obvious in view of Lezdey because Lezdey only shows administration of alpha-2-macroglobulin, which is not a serpin according to Lezdey. Applicant asserts that one would not have had a reasonable expectation of success that a serpin would be administered in dosages similar to a non-serpin protein, such as alpha-2-macroglobulin. In response, Lezdey teaches that alpha-1-macroglobulin acts similarly to both serpins alpha-1-antitrypsin and alpha-1-antichymotrypsin. In view of this teaching and lacking evidence to the contrary, one would have had a reasonable expectation of success that the administration of a protein that acts similarly to alpha-2-macroglobulin would be administered in comparable amounts.

SBC

Examiner Stacy B. Chen
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571-272-0896

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